I.   <u>In the Abstract</u>

ABSTRACT

A method, computer system, and computer program for analyzing geological data sampled from a subsurface region and an analysis of the geological data stored in a geoscience model on a magnetic media, including building a simulation input model from the geoscience model. A boundary is constructed for dividing the region into a first sub-region and a second sub-region; storing on the magnetic media the shape of the boundary as a parametric function whose parameter density can vary. A subsurface region divided into sub-regions, in each of which a material property varies without discontinuities.